

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated December 14, 2005. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 1-18 and 28-29 are under consideration in this application. Claims 1 and 10 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim Applicants' invention. New claims 28-29 are being added to recite other embodiments described in the specification, especially page 7, 3rd paragraph.

All the amendments to the specification and the claims are supported by the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

Claims 1 and 10 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. As noted on page 2, the Examiner has taken the position that the meaning of "containment structure" cannot be understood from the claims and drawings, and is requiring clarification thereof. As indicated, the claims are being amended to overcome the 112 rejection. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Prior Art Rejections

Under 35 U.S.C. §103(a), claims 1-8 and 12 were rejected as being unpatentable over US Patent No. 3,886,368 to Rollins (hereinafter "Rollins") in view of US Patent No. 5,887,042 to Akamatsu (hereinafter "Akamatsu"), claim 9 was rejected over Rollins in view of Akamatsu, and further in view of US Patent No. 3,005,105 to Lusk (hereinafter "Lusk"); claims 10, 11 and 13 were rejected over Lusk in view of Akamatsu; and claims 15-16 and 18 were rejected over Lusk in view of Akamatsu, and further in view of US Pat. App. Pub. No. 2003/0102445 of Kamoshida (hereinafter "Kamoshida"). The remaining prior art references

cited but not relied upon were considered pertinent to the disclosure of the invention. The above-outlined rejections have been carefully considered, but are most respectfully traversed.

The concrete cask A of the invention (for example, the embodiment depicted in Figs. 1 & 2A) comprises: an inner shell 7 made from metal; an outer shell 4 made from metal; a shielding body 3 composed of concrete includes portland cement (e.g., Table 1 on p. 37) and provided between said inner shell 7 and said outer shell 4; an accommodation portion (i.e., space) formed inside said inner shell 7 for accommodating a radioactive substance (x) therein thereby being kept from the outside of the cask A (p. 7, 2nd paragraph).

As recited in claim 1, the concrete cask A further comprises heat transfer fins 11 provided between said inner shell 7 and said outer shell 4. The heat transfer fins 11 each has an inner shell-side and an outer shell-side and is configured such that said inner shell-side is in contact with the inner shell 7 and the outer shell-side is formed with at least a portion that is not in contact with the outer shell 4 (e.g., Figs. 3, 5, 13); or such that said outer shell-side is in contact with the outer shell 4 and the inner shell-side is formed with at least a portion that is not in contact with the inner shell 7 (e.g., Figs. 2B, 4, 7-8, 12).

As recited in claim 10, the shielding body 3 further includes a metal material that has a high thermal conductivity (p. 27, last paragraph).

Applicants respectfully contend that cited references fails to teach or suggest such a “shielding body 3 composed of concrete includes portland cement and provided between said inner shell 7 and said outer shell 4” as in the invention

As admitted by the Examiner (p. 3, lines 11-12 of the outstanding Office Action), “Rollins does not use concrete to fill the region between the inner and outer shells. Akamatsu was relied upon by the Examiner to provide such a teaching. However, Akamatsu’s shielding layer 6 arranged between an inner shell 1 and an outer shell 2, is formed of *“the compact of a mixture of lead and a metal hydride dispersed therein”* (col. 3, lines 51-61), without any “portland cement” between the inner and outer shells.

Lusk was used to teach the features recited in claims 9-11 and 13. However, Lusk’s shielding body 12 arranged between an inner shell 10 and an outer shell 11, is composed of lead mass (col. 2, lines 37-46), without any “portland cement” between the Inner and outer shells.

Kamoshida was used to teach the features recited in claims 15-16 and 18. However, Kamoshida’s shielding body arranged between an inner shell and an outer shell, is made of a hardened resin which is a homogeneous mixture of base liquid epoxy resin, amine type hardener, aluminum hydroxide which gives flame resistance to the resin, and boron carbide

which works as a neutron absorbing material([0005]-[0006]), without any "portland cement" between the Inner and outer shells.

Applicants contend that neither Rollins, Akamatsu, Lusk, Kamoshida nor any other cited reference teaches or discloses each and every feature of the present invention as disclosed in the independent claims 1 and 10. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and phone number indicated below.

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